

AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior listings and versions of claims in this application.

1. (Original) A method for making an anti-microbial filter for a micro-fluidic system, the method comprising the steps of:

providing a substrate;

forming a filter membrane of a filter material on the substrate; and

forming a plurality of holes through the filter membrane by

providing a filter mask having a plurality of holes therein over the filter membrane by depositing a plurality of spacers on the filter material such that a part of each of the spacers contacts the filter material to define said plurality of recesses and holes in the filter mask, depositing filter mask material partially around the spacers and on the filter material such that the part of each of the spacers that contacts the surface of the filter material prevents the filter mask material from continuously coming between the spacers and the filter material and thereby defines one of the plurality of holes in the filter mask, removing the plurality of spacers to form the plurality of recesses and holes in the filter mask, and

forming the plurality of holes in the filter membrane in registration with the plurality of recesses and holes in the filter mask respectively; and

removing at least a portion of the substrate to expose at least some of the holes in the filter membrane.

2. (Original) The method according to claim 1, wherein the step of forming the filter membrane further comprises the step of:

diffusing filter material into a predetermined depth of the substrate, wherein the predetermined depth of the diffusion of the filter material into the substrate corresponds to a predetermined thickness of the filter membrane.

3. (Original) The method according to claim 1, wherein the step of forming the filter membrane

further comprises the step of:

depositing the filter membrane on the substrate.

4. (Original) The method according to claim 1, wherein the step of forming the plurality of holes in the filter membrane comprises the steps of:

providing a filter mask having a plurality of recesses therein over the filter membrane; and forming the plurality of holes in the filter membrane in registration with the plurality of holes in the filter mask.

5. (Original) The method according to claim 1, wherein the step of removing the plurality of spacers further comprises the step of:

dissolving the plurality of spacers.

6. (Original) The method according to claim 1, wherein the step of removing the plurality of spacers further comprises the step of:

disintegrating the plurality of spacers.

7. (Original) The method according to claim 1, wherein the step of forming the plurality of holes in the filter membrane comprises the step of:

etching the filter membrane through the recesses in filter mask.

8. (Original) The method according to claim 1 comprising the step of:

depositing an anti-microbial coating between the holes on the filter membrane.

9. (Original) The method according to claim 9 wherein the anti-microbial coating contains silver.

10. (Original) The method according to claim 4, wherein the plurality of holes in the filter membrane are formed by etching the filter membrane through the recesses in filter mask.

11. (Original) The method according to claim 10, wherein the etching step includes reactive ion etching.

12 – 14 (Canceled)

15. (Original) A method for making an anti-microbial filter for a micro-fluidic system, the method comprising the steps of:

providing a substrate;

forming a filter membrane of a filter material on the substrate;

forming a plurality of holes in the filter membrane; and

removing at least a portion of the substrate to expose the plurality of holes in the filter membrane.